

Amendments to the Claims:

This listing will replace all prior versions, and listings, of the claims in the application. Kindly cancel Claims 14-21 and 26 and 27, without prejudice or disclaimer.

Listing of Claims:

1. (currently amended) An apparatus for measuring light reflections of an object, the apparatus comprising:

(A) an illumination unit for providing an illumination beam (305), said illumination beam illuminating an illumination field (313) on the object;

(B) an observation unit for providing an observation beam (306), said observation beam comprising light received from an observation field on said illuminated object; said observation unit comprising at least a first observation field stop (310) adapted to define a ray boundary of said observation beam (306);

the observation unit further comprising an observation light receiver (302, 304) adapted to provide a measuring signal for determining a reflection coefficient from said measuring signal;

wherein the apparatus comprises a lens (309) common to the illumination unit and the observation unit;

characterized in

that said lens is arranged so that said illumination beam and said observation beam form an overlap therein;

that the illumination unit and the least first observation field stop are configured to cause the observation field and the illumination field to have different sizes; and

that said first observation field stop (310) comprises a wall member extending from the observation light receiver towards said lens; wherein the wall member extends only a part of the distance between the observation light receiver and the lens as to limit said ray boundary of said observation beam while maintaining said overlap of said illumination beam and said observation beam inside the lens.

2. (original) The apparatus according to claim 1, comprising a second observation field stop (308) between the observation light receiver and the lens and displaced along the direction of propagation of said observation beam from the first observation field stop.

3. (currently amended) The apparatus according to claim 1 or 2, wherein said illumination unit comprises:

(a) an illumination light source, said illumination light source comprising at least one light source (301) and an illumination aperture stop (303), said at least one light

source and said illumination aperture stop being arranged to provide a confined luminous field,

(b) an illumination field stop (307), said illumination field stop being adapted to provide ~~[[an]]~~ the illumination beam (305) of light from said confined luminous field,

(c) ~~[[an]]~~ a collimating optical element (309), said collimating optical element being adapted to collimate said illumination beam and to provide ~~[[an]]~~ the illumination field (313) on ~~[[an]]~~ the object;

wherein said observation unit comprises:

~~(a) at least a first observation field stop (310), said at least one observation field stop being adapted to provide an observation beam (306) of light from an observation field (314) on said object, said observation beam comprising a ray boundary;~~

~~(b) at least one focusing optical element (309), said at least one focusing optical element being adapted to focus said observation beam,~~

wherein the observation light receiver comprises a light receiver (302) and an observation aperture stop (304), said light receiver and said observation aperture stop being arranged to provide a confined receiving field of said focused observation beam;

wherein said first observation field stop is adapted to stop light from said illumination unit in reaching said observation light receiver of said observation unit.

4. (previously presented) The apparatus according to claim 1 or 2, wherein said first observation field stop (310) extends substantially half the distance between the observation light receiver and the lens.

5. (previously presented) The apparatus according to claim 1 or 2, wherein said first observation field stop is adapted to stop light reflections.

6. (previously presented) The apparatus according to claim 3, wherein said collimating optical element (309) and said focusing optical element (309) are accommodated in said lens (309).

7. (currently amended) The apparatus according to claim 3, wherein said collimating optical element ~~[(409)]~~ (409A) has an optical axis which is displaced relative to the optical axis of said observation aperture stop (304).

8. (currently amended) The apparatus according to claim 3, wherein said collimating optical element ~~[(409)]~~ (409B) is tilted so that its optical axis is non-parallel to the optical axis of the said observation aperture stop ~~[(404)]~~ (404B).

9. (currently amended) The apparatus according to claim ~~1 or 2~~ 3, wherein said illumination field stop (307) is fixed to said wall member.

10. (previously presented) The apparatus according to claim 3, further comprising a directional optical element (311) for lateral direction of said collimated illumination beam.

11. (currently amended) The apparatus according to claim ~~[[3]]~~ 10, wherein said collimating optical element, said focusing element, ~~said common optical element~~, and said directional optical element are selected from the group consisting of refractive optical elements, reflective optical elements, and diffractive optical elements, or a combination thereof.

12. (original) The apparatus according to claim 11 wherein said refractive optical element is a lens, lens assembly, prism, or a combination thereof.

13. (original) The apparatus according to claim 11 wherein said reflective optical elements is a mirror, preferably a planar mirror or a non-planar mirror, or a combination thereof.

Claims 14-21 – (canceled)

22. (currently amended) ~~[[An]]~~ The apparatus according to Claim 3 ~~for measuring light reflections of an object~~, the apparatus comprising:

~~[[a)]~~ a housing accommodating said illumination unit and said observation unit. ;

~~(b) a light source illumination observation assembly (601-610).~~

23. (previously presented) The apparatus according to claim 22 further comprising a diffuser light-source assembly (614, 615).

24. (original) The apparatus according to claim 22 or 23 further comprising means for determining a retroreflection coefficient and/or a reflection coefficient of the measured light reflections of the object.

25. (currently amended) The apparatus according to claim 23, further comprising means for selecting a light source between said ~~light source~~ illumination ~~[[-]] unit observation assembly~~ and said diffuser light-source assembly.

Claims 26 and 27 – (canceled)

28. (new) A method of measuring at least one of light retroreflection and light reflection, the method comprising:

providing an apparatus for measuring light reflections of an object as defined in Claim 1;

directing an illumination beam generated by said apparatus toward an observation field of an object;

receiving by said apparatus an observation beam from an observation field of said object so as to measure light reflections by the object; and

determining at least one of a retroreflection and a reflection coefficient of the measured light reflection of the object.

29. (new) The method according to claim 28, wherein the object is chosen from the group consisting of a reflective material, a reflective device, a retroreflector material and a retroreflector device.

30. (new) The method according to claim 28 wherein the object is chosen from the group consisting of a road marking, a road surface, and a raised pavement marking.